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MITOX®

Operator's Manual

user manual, maintenance instructions and spare parts

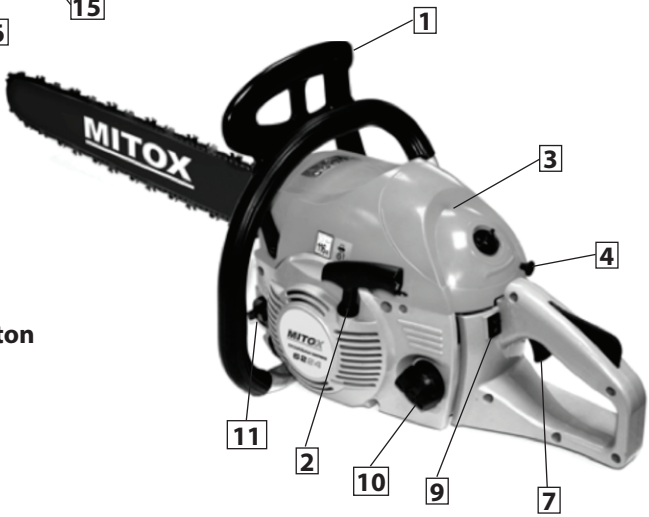
6220 / 6224 Chainsaw

CE

Read this manual carefully before operating the machine

Original Instructions Version May 13

Component Location



1. **Chain brake**
2. **Recoil handle**
3. **Air cleaner cover**
4. **Choke knob**
5. **Throttle interlock**
6. **Rear handle**
7. **Throttle lever**
8. **Decompressor button**
9. **Engine switch**
10. **Fuel tank**
11. **Oil tank**
12. **Front handle**
13. **Saw chain**
14. **Guide Bar**
15. **Pump Primer**

PRODUCT DESCRIPTION

This Chain Saw is a 2 stroke fast running power tool and is designed to be used in a domestic application for cutting wood only. Do not cut metal, plastic or any non-wood materials.

Safety Precautions

In order to ensure proper and safe operation of your chain saw:-

• Read this Owner/Operator Manual carefully. Be sure you understand how to operate this unit properly before you use it. Failure to do so could result in serious injury.

• Keep this manual handy so that you may refer to it later whenever any questions arise. Also note that you are able to contact the dealer from whom you purchased the product for assistance, in the event that you have any questions which cannot be answered in the manual.

• Always include this manual when selling, lending, or otherwise transferring the ownership of this product.

• This product is a 2 stroke fast running power tool and has been designed to be used as a chain saw for cutting wood and it should never be used for any other purpose, doing so could result in unforeseen accidents and injuries occurring.

• This product is equipped with extremely sharp blades, and when used incorrectly these blades can be dangerous.

For this reason, you should never use this chain saw when under the influence of alcohol, suffering from exhaustion or lack of sleep, suffering from drowsiness as a result of having taken medicine, or at any other time when a possibility exists that your judgment might be impaired or that you might not be able to operate the chain saw properly and in a safe manner. Never allow children or anyone unable to fully understand the directions given in this manual to use this chain saw.

• Avoid running the engine indoors. The exhaust gases contain harmful carbon monoxide.

• Never use the chain saw in conditions as described below:

1. When the ground is slippery or when other conditions exist which might make it difficult to maintain a steady posture while using the chain saw.

2. At night, at times of heavy fog, or at any other times when your field of vision is limited and it would be difficult to gain a clear view of the area where the chain saw is to be used.

3. In heavy rain, during lightning storms, at times of strong or gale-force winds, or at any other times when weather conditions might make it unsafe to use this product.

• When using this chain saw for the first time, before beginning actual work, take the chain saw to a wide, clear, open space, start the engine, and practice handling the chain saw until you are sure that you will be able to handle it properly in actual operation.

• Lack of sleep, tiredness, or physical exhaustion results in lower attention spans, and this in turn can lead to accidents and injury. When planning your work schedule, allow plenty of time to perform the work and allow plenty of time for rest. Limit the amount of time you continuously use the chain saw to 30~40 minutes per session, and take 10~20 minutes of rest between work sessions. Also try to keep the total amount of work performed in a single day to 2 hours.
Do not operate the chain saw in a tree unless specially trained to do so

Work gear and clothing

• When using your chain saw, always wear strong, durable, work clothing; shirts should be long-sleeved and trousers should be full-length.
Always
• Wear a helmet and face protector.
• Wear ear protectors.
• Wear gloves with saw protection.
• Wear trousers with saw protection.
• Wear boots with saw protection, steel toe caps with non slip sole.

Warnings regarding handling of fuel

• The engine of the chain saw is designed to run on a fuel oil mixture. This fuel is highly flammable, and you should never store cans of fuel or refill the tank of the chain saw in any place where there is a source of heat or fire which might ignite the fuel.
• Do not smoke whilst operating the chain saw or refilling, keep lit cigarettes away from the chain saw at all times.
• When refilling the tank always turn off the engine first and carefully make sure that there are no sparks or open flames anywhere nearby before refuelling.
• If any fuel spillage occurs during refuelling, use a dry rag to wipe any fuel which has been spilled onto the chain saw before starting the engine.
• After refuelling, screw the fuel cap back tightly onto the fuel tank and then carry the chain saw to a spot 3 metres or more away from where it was refuelled before starting the engine.

Before using your chain saw

• Before beginning work, carefully check around the area and remove any obstacles and clear a retreat path from falling trees.

• The area within a perimeter of 15 metres of the person using the chain saw should be considered a hazardous area into which no one should enter while the chain saw is being used, and when necessary mark with a warning rope, warning signs, or other forms of warning. When work is to be performed simultaneously by two or more operators, care should also be taken to constantly look around to check the presence and locations of other operators within the work area so as to maintain a safe distance between each person.

• Before beginning work, each component of the chain saw should be checked to make sure that it is in proper working order and to make sure that there are no loose screws or bolts, fuel leaks, ruptures, dents, or any other problems which might interfere with safe operation. Be especially careful to check that there is no damage to the blades or chain brake.

• Never use the chain saw when the blades/chain are excessively worn or when any sort of damage has occurred to the cutting mechanism.

Keep all parts of your body away from the saw chain when the engine is running.

Avoid Noise Problems

Check and follow the local regulations for sound level and hours of operation for garden machinery.
• In general, operate chain saws between 8 am, and 5 pm on week days and 9 am to 5 pm weekends. Avoid using the chain saw late at night and/or early in the morning.

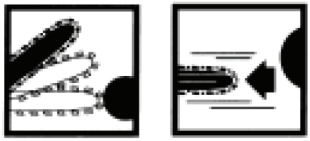
Safety when using your chain saw

• When using your chain saw, grip the handles firmly with both hands, place your feet slightly apart so your weight is distributed evenly across both legs, and always be sure to maintain a steady, even posture while working. Do not use on ladders or if the ground surface is slippery or uneven. Never attempt to cut directly overhead or with one hand.
• Maintain full engine speed when cutting.
• Never allow other persons to come within the work area as doing so might expose them to danger.
• If a branch or other object gets caught in the blades during operation, always turn off the engine before removing the object.
• To protect yourself against injury from falling branches, wear the required safety equipment.
• Keep operation area clear of all persons, particularly small children and pets. Injury may result from flying debris.
• Never touch the spark plug or plug HT cable while the engine is in operation, doing so may result in an electrical shock.
• Never touch the muffler, spark plug, or other parts of the engine while the engine is in operation or immediately after shutting down the engine. These parts reach high temperatures during operation and doing so could result in serious burns.
• When you finish cutting in one location and wish to continue work in another area, turn off the engine, place the protective cover over the blades, and turn the chain saw so that the blades face away from your body before carrying it to the new location.
• Always remove fuel from the fuel tank before transportation to prevent fuel spillage.
• When not in use never leave the chain saw exposed to direct sunlight as this can heat the fuel tank and may cause a discharge of fuel, and flood the engine.

Kickback and Safety Precautions

Beware of kickback!

Kickback can occur whenever the tip of the guide bar touches an object while the saw is operating. Kickback may force the bar up and back towards the operator with speed!



Beware of pinching!

Pinching the saw along the tip of the guide bar may force the bar back rapidly toward the operator. Pinching can occur whenever wood closes in around the moving chain.

Both kickback and pinching may cause you to lose control of the chain saw, which could result in serious personal injury.

1. Understand kickback and pinching!

2. Keep a firm grip on the chain saw with both hands whenever the engine is running.
   A firm grip will help you reduce the affects of kickback and pinching as well as maintain control of the machine.

3. Cut at high engine speeds.

4. Follow the manufacturer's instructions for sharpening and maintaining the chain.

5. Use only genuine spare parts.

Safety Symbols

Warning, Danger, Caution

Read the documentation and safety instructions which are provided in this user manual.

When operating this machine, use protective equipment such as goggles, helmet and ear defenders, and safety clothing.

Use the chain saw with two hands.

Beware: keep hands and feet away from moving parts. Always keep a safe distance from the cutting parts.

Beware of objects being thrown from the operating zone.

Warning! Danger of kickback

Directive 2000-14/CE. Guaranteed noise levels.

Danger: risk of intoxication.

Danger: risk of fire or explosion.

Hot surface, risk of burn.

Taking care of warning labels

Always keep warning labels clean and free of scratches, which might make them illegible or difficult to read. If the warning labels provided with your chain saw become damaged, peel off, or otherwise become illegible or difficult to read, order new labels from the authorised servicing dealer and replace the damaged labels. When applying new labels, first wipe away any dirt and dry the surface before applying the new label in the same place as the original label.

Explanation of Symbols on the Machine

For safe operation and maintenance, symbols are carved in relief on the machine.

Fuel tank 2 stroke mix
Position: Fuel cap

Chain oil tank
Position: oil cap

Stop Switch
Setting the switch to the "O" position, the engine stops immediately.
Position: Rear-left of the unit

Choke Operation
Starting mode when the engine is hot.
Position: Upper-right of the air cleaner cover.

Starting mode when the engine is cold.

Carburetor Adjustments

H

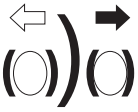
The screw under the "H" stamp is The High-speed adjustment screw.
Position: Left side

L

The screw under the "L" stamp is The Slow-speed adjustment screw.
Position: Left side

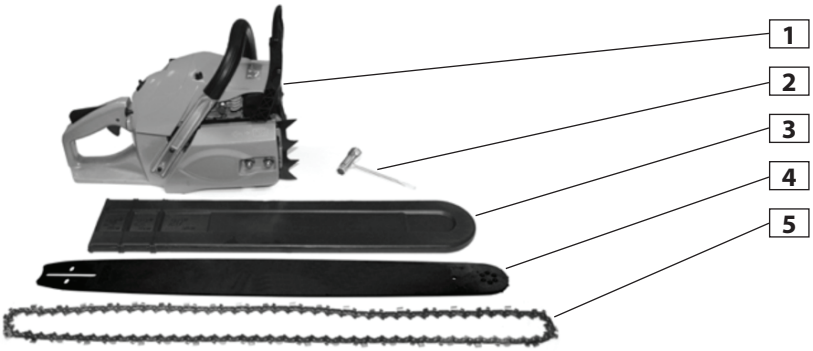
T

The screw at the left of the "T" stamp is the idle adjustment screw.
Position: Left side



Chain Brake Operation
Shows the directions that the chain brake is Released (white arrow) and Activated (black arrow).
Position: Front of the chain cover

In the Box



A standard saw unit package contains the items as illustrated.

1) Power unit
2) Saw chain
3) Guide bar
4) Bar protector
5) Plug wrench
6) Spike and mounting screws, dependent on model.

Not pictured

7) Owner's manual.

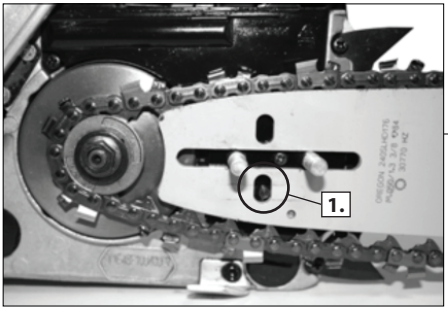
Installing the Guide Bar and Chain

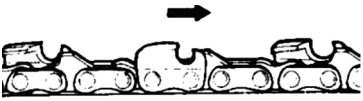
Open the box and install the guide bar and the saw chain on the power unit as follows:

The saw chain has very sharp edges. Use thick protective gloves for safety.

1. Pull the guard towards the front handle to check that the chain brake is not on.
2. Loosen the nuts and remove the chain cover.
3. Install the spike to the power unit (dependent on model).
4. Remove and discard the plastic packer (3) located on the bar studs.
5 . Fit the guide bar over the bar bolts.

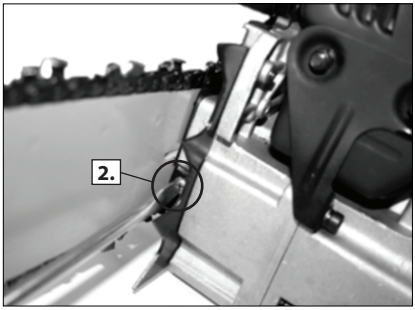
Figure 1.





Chain Direction

Figure 2.



6. *Figure 1* Fit the chain to the drive sprocket and while fitting the saw chain around the guide bar, adjust the position of the chain tensioner (1) to fit into the hole in the guide bar.
7. Fit the chain cover to the power unit and fasten the nuts finger tight.
8. *Figure 2* While holding up the tip of the bar, adjust the chain tension by turning the tensioner screw (2) until the chain does not sag from the underside of the guide bar.
9. Tighten the bar nuts securely with the bar held up to 12/15N.M, then check the chain for smooth rotation and proper tension while moving the chain by hand.

Note: A new chain will expand in length at the beginning of use. Check and readjust the tension frequently, as a loose chain can easily derail or cause rapid wear to itself and the guide bar.

Before starting the engine

• Carefully check the area to make sure that no obstacles exist within a perimeter of 5 metres around the chain saw before starting the engine.

• When starting the engine, place the body of the chain saw onto the ground in a flat clear area and hold it firmly in place to ensure that neither the blades nor the throttle come into contact with any obstacles when the engine starts up.

• After starting the engine, make sure that the blades stop moving when the throttle trigger is released (idle). If the blades continue to move when the engine is at idle, adjust the idle screw on the carburettor to a point where the blades stop moving, if this cannot be achieved, turn off the engine and take the chain saw to your authorised servicing dealer for adjustment.

• The chain brake must be engaged before starting the chainsaw. Apply the chain brake by pushing the front hand guard forwards. (see page 14)

Fuel & Chain Oil

WARNING

• Fuel is very flammable. Do not smoke or bring any flame or sparks near fuel. Always stop the engine and allow it cool before refuelling. Refuel outdoors on bare ground, restart engine at least 3m away from the refuelling stop.

FUEL MIX TWO-STROKE

40 : 1

The engine is lubricated by oil mixed into petrol. Prepare a mixture of unleaded petrol and only use semi-synthetic two-stroke oil that meets the specifications of: API TC, ISO-L-EGC, JASO FC (Low Smoke) oil.

Recommended mixing ratio is 40:1.

Use fresh, unleaded petrol (95 RON) and semi-synthetic oil specially made for high performance two-stroke engines. Mix in a ratio of 40 parts petrol to 1 part of oil.

Using two-stroke oil specially made for two-stroke engines will reduce the formation of ash and carbon deposits in the spark plug, piston, muffler and cylinder as well as reducing emissions of harmful exhaust gases. Lubrication will be maximized and the engine life extended.

It is important to only use good quality, fresh petrol and oil. The two-stroke fuel mixture should be used within four weeks.

IMPORTANT

Stored two-stroke fuel may separate during storage, always shake fuel container before each use.

DO NOT USE:

• Fuel containing no oil (raw petrol) will cause the engine to become overheated and severe damage will occur which is not covered by warranty

Fuelling

WARNING

1. Stop the engine before refuelling the unit, agitate the mixed two-stroke mixture in the container.

2. Move at least 3 metres away from the fuelling point before starting the engine.

3. Mixed fuel which have been stored for a period of one month or more may damage/ block the carburettor resulting in the engine failing to start.

4. In the case of storing the product for a long period of time, empty the fuel tank. Next, run the engine to empty the carburettor of fuel.

FUELLING THE CHAINSAW

1. Shake the fuel container to thoroughly mix the two-stroke oil and petrol mix.

2. Clean around the fuel cap before removing.

3. Pour 40:1 two-stroke fuel into the fuel tank with a filtered funnel, up to 80% of the fuel tanks capacity.

4. Replace the fuel cap and tighten securely. Spilled fuel must be wiped away from the chain saw before starting the engine.

CHAIN OIL

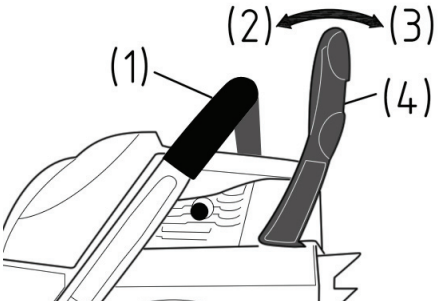
Use only special anti fling chain oil grade SAE30. Fill the chain oil tank every time you fill the fuel tank.

Note: Do not use waste or regenerated oil that can cause damage to the oil pump.

Chain Brake

This machine is equipped with an automatic brake to stop the saw chain rotation upon the occurrence of kickback during saw cutting. The brake is automatically operated by inertial force, which acts on the weight fitted inside the front guard. The brake can also be operated manually by pushing the front guard forward towards the guide bar.
To release the brake, pull back the front guard (4) toward the front handle (1) until a "click" sound is heard (2).

How to check:
You must check the chain brake operation before each usage by running the saw at full throttle for 1-2 seconds and pushing the front hand guard (4) forward (3).
The chain should stop immediately with the engine at full speed.
If the chain is slow to stop or does not stop, replace the brake band and clutch drum before use.



Before proceeding to your job, it is recommended to first practice sawing easy logs. This also helps you get accustomed to your unit.

Always follow the safety regulations:
The chain saw must only be used for cutting wood. It is forbidden to cut other types of material. Vibrations and kick-back vary with different materials and the requirements of the safety regulations would not be met. Do not use the chain saw as a lever for lifting, moving or splitting objects.
The saw should cut easily without force. Apply only light pressure while running the engine at full throttle. When the saw chain is caught in the cut, do not attempt to pull it out by force, but use a wedge or a lever to open the way.

Kickback Safety Precautions

Kickback may occur when the nose or tip of the guide bar touches an object, or when the wood closes in and pinches the saw chain in the cut. Top contact in some cases may cause a lightning fast reverse reaction, kicking the guide bar up and back towards the operator. Pinching the saw chain along the top of the guide bar may push the guide bar rapidly back towards the operator. Either of these reactions may cause you to lose control of the saw which could result in serious personal injury.

Do not rely exclusively on the safety devices built into your saw. As a chain saw user you should take several steps to keep cutting jobs free from accident or injury.

1. With a basic understanding of kickback you can reduce or eliminate the element of surprise. Sudden surprise contributes to accidents.

2. Keep a good grip on the saw with both hands, the right hand on the rear handle, and the left hand on the front handle, when the engine is running. Use a firm grip with thumbs and fingers encircling the chain saw handles. A firm grip will help you reduce kickback and maintain control of the saw.

3. Make certain that the area in which you are cutting is free from obstructions. Do not let the nose of the guide bar contact a log, branch, or any other obstruction which could be hit while you are operating the saw.

4. Cut at high engine speeds.

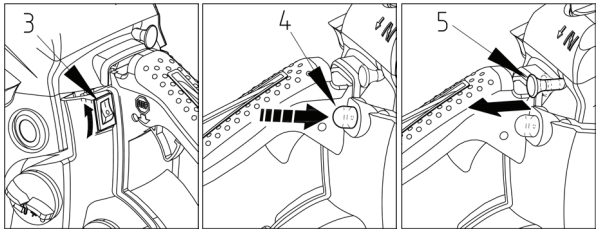
5. Do not overreach or cut above shoulder height.

6. Follow manufacturers sharpening and maintenance instructions for saw chain.

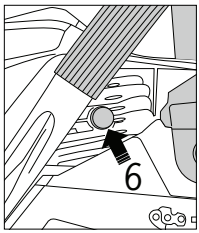
7. Only use replacement bars and chains specified by the manufacturer or the equivalent.

It is important to maintain the proper chain tension. Rapid wear of the guide bar or the chain coming off can be caused by improper tension, especially when using a new chain.

Operating the Engine



1. Fill fuel (2) and chain oil (1) tanks respectively, and tighten the caps securely.



2. Set the switch (3) to "I" position.

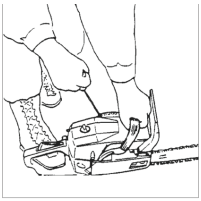
3. Press the primer button (4) 6 times.

4. Pull out the choke knob (5). The choke will close and the throttle will be set in the starting position.

5. Push in the decompressor valve (6).

6. Apply the chain brake by pushing the front hand guard (7) forwards.

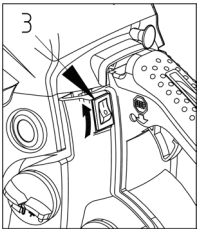
7. Place the saw on the ground, grip the front handle with your left hand, place your right foot through the rear handle. Pull the starter handle with your right hand.
Caution: do not pull the starter cord all the way out and do not let go of the starter handle if the cord is extended, this can damage the starter mechanism.

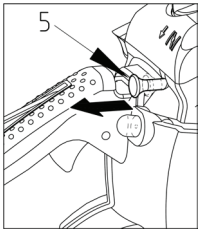


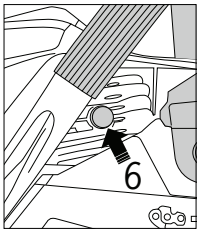
8. When the engine has tried to fire, push in the choke knob (5) and then pull the starter handle again to start the engine.

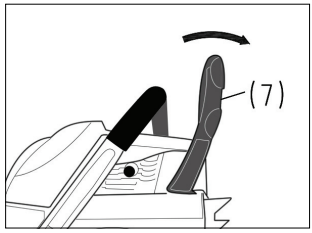
9. As soon as the engine is running, pull the throttle lever slightly to reset the throttle control to idle. This must be done as soon as the engine has started to avoid unneccessary wear on the clutch.
NOTE: Disengage the chain brake by pulling the front hand guard towards the front handle prior to cutting.

Hot engine









1. Set the switch (3) to "I" position.

2. Pull out the choke knob (5), then push the choke knob back in, this will set the throttle to the hot start position.

3. Push in the decompressor valve (6).

4. Apply the chain brake by pushing the front hand guard (7) forwards.

5. Pull the starter handle until the engine runs.

6. As soon as the engine is running, pull the throttle lever slightly to reset the throttle control to idle. This must be done as soon as the engine has started to avoid unneccessary wear on the clutch.
NOTE: Disengage the chain brake by pulling the front hand guard towards the front handle prior to cutting.

Running In

During the first ten hours of work, avoid running the engine at maximum speed for a prolonged period until all the components have bedded in. After the engine has been run in, it will reach its maximum power. After two hours of work, check that all nuts and screws are securely fastened and tighten if necessary.

Stopping Engine

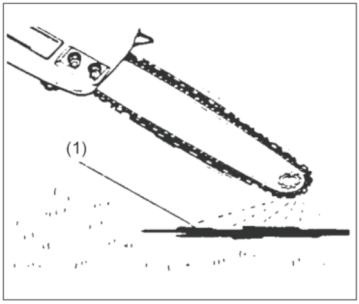
1. Release the throttle lever and allow the engine to run at idle for half a minute.

2. Shift the ignition switch to the STOP position ("0").

NOTE: Except for an emergency, avoid stopping the engine while at full throttle.

Checking the Oil Supply

After starting the engine, run the chain at medium speed and see if chain oil is sprayed as shown in the figure.



WARNING

• This chain saw is equipped with very sharp blades, and when used incorrectly the blades can be extremely dangerous. Improper handling can cause accidents which may in turn lead to serious injury or death. For this reason, you should always be careful to adhere to the following instructions when using your chain saw.

• Never hold the chain saw in a way in which the blades are pointed towards someone else.

• Never allow the blades to come into proximity with your body while the engine of the chain saw is in operation.

• Always turn off the engine before adjusting the blades, removing branches which have become stuck in the blades, or at any other time when coming into close proximity with the blades.

• Always wear work gloves made of leather when adjusting the chain saw.

• Always place the blade cover provided with the chain saw over the blades when not in use.

• Falling branches may fall onto the operators face or into the eyes, resulting in injuries, scratches, and cuts, and for this reason you should always wear a helmet and face protector when using your chain saw

Transportation

• Never transport the chain saw with the engine running. An engine that is running could be accidently accelerated causing the blade to engage.

• Make sure the blade safety guards are in place when transporting the chain saw.

• When carrying by hand, the cutting head should be pointing backwards.

• Ensure the chain saw is secure when transporting in a vehicle and the tank is drained of fuel.

Care and Maintenance of Your Chain Saw

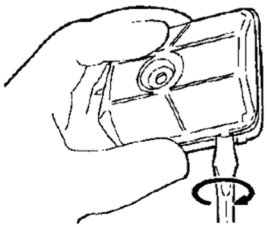
• In order to maintain your chain saw in good working order, perform the maintenance and checking operations described in this manual at regular intervals. In the event that any part needs to be replaced, please contact the nearest authorised service dealer for assistance.
• Always turn off the engine before performing any maintenance or checking procedures.
• When sharpening, removing, or reattaching the blades, be sure to wear thick, sturdy gloves and use only appropriate tools and equipment to prevent injury.
• When replacing blades or any other parts, be sure to use only genuine spare parts and approved lubricants.

Maintenance

IMPORTANT
• After every use, check that all nuts, bolts and screws are securely fastened and tighten if necessary.
• In the event of an accident, breakdown or blockage, ensure the engine is turned off before any work is carried out to rectify this.
• Make sure the engine has stopped and is cool before performing any service to the machine. Contact with moving cutting head or hot muffler may result in a personal injury. Always wear heavy-duty gloves when handling the blades.

Maintenance After Each Use

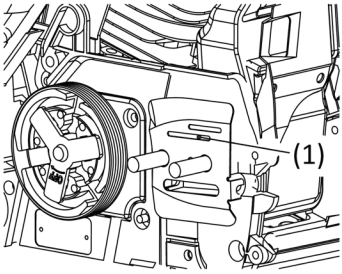
Air filter
Dust on the air cleaner surface can be removed by tapping a corner of the cleaner against a hard surface. To clean dirt in the meshes, split the cleaner into halves and brush off the dust lightly or wash in non-inflammable solvent, or replace the air filter.



To assemble the cleaner halves, press until it clicks.

Maintenance After Each Use

Oiling port

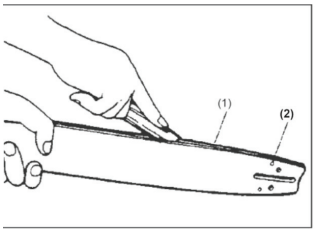


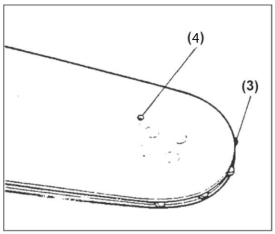
Dismount the guide bar and check the oiling port (1) for clogging.

Guide bar

When the guide bar is dismounted, remove sawdust from the bar groove and the oiling port.
Grease the nose sprocket with a sprocket grease gun (Oregon part number 21939)

1. Guide bar groove
2. Oil hole
3. Drive sprocket
4. Grease point

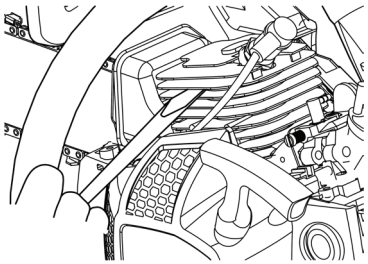




Others
Check for fuel leakage and loose fastenings and damage to major parts, especially handle joints and guide bar mounting. If any defects are found, make sure to have them repaired before operating the saw again. Check for cracks and for excessive wear interfering with the chain drive. If the wear is considerable, replace it with a new one. Never fit a new chain on a worn sprocket, or a worn chain on a new sprocket.

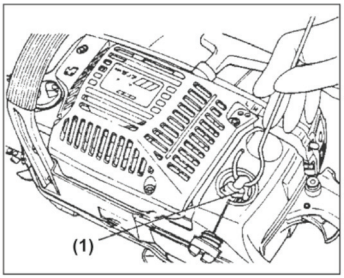
Periodical Service Points

Cylinder Fins



Dust clogging between the cylinder fins will cause overheating of the engine.
Periodically check and clean the cylinder fins after removing the cylinder cover.
When installing the cylinder cover, make sure that switch wires and grommets are fitted correctly.

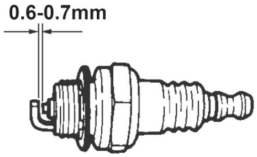
Fuel filter



Using a wire hook, take out the filter (1) from the filler port.

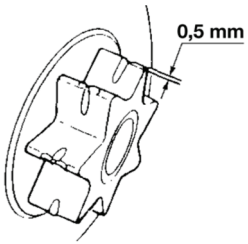
Disassemble the filter and clean with petrol, or replace with a new one if needed.

Spark plug



Clean the electrodes with a wire brush and reset the gap to 0.65 mm as necessary.
Plug type: NGK: BPMR7A

Sprocket

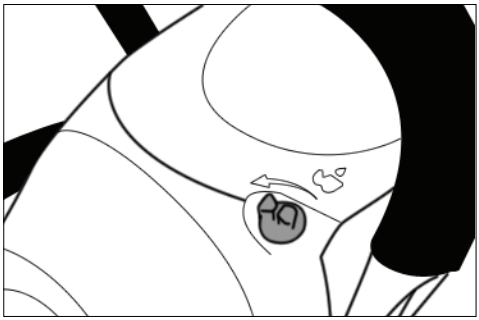


Check for cracks and for excessive wear interfering with the chain drive. If the wear is considerable, replace it with a new a one. Never fit a new chain on a worn sprocket, or a worn chain on a new sprocket.

Adjusting Oil Flow Rate

Never fill the oil reservoir or adjust the oiler with the engine running.

An increase in bar oil flow rate will speed oil consumption, requiring more frequent checks on the oil reservoir. To ensure sufficient lubrication, it may be necessary to check the oil level more frequently than at fuel tank refills. The guide bar and chain are lubricated automatically by a pump that operates whenever the chain rotates. The pump is set at the factory to deliver a minimum flow rate, but it can be adjusted in the field. A temporary increase in oil flow is often desirable when cutting hardwood.



Adjust the pump as follows:

1. Stop the engine and make sure the stop switch is in the OFF position.
2. Adjust the oil flow rate using the adjusting screw on the top cover of the machine.
3. With a screwdriver, turn he oil flow rate adjusting screw in the desired direction: Clockwise-decrease lubrication / Counter clockwise-increase lubrication.

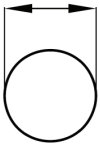
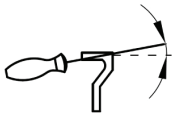
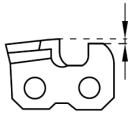
Saw Chain Sharpening

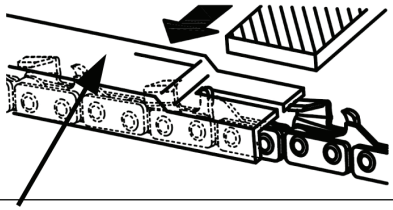
The chain needs to be sharpened when:

1. Sawdust becomes powder-like.
2. The cut path does not go straight.
3. Fuel consumption increases.
4. You need extra force to saw with.
5. Vibration increases.

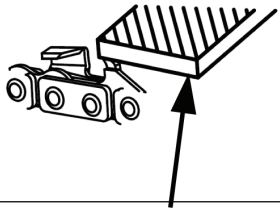
Be sure to wear safety gloves.

- Clamp chain saw guide bar in a vice to secure.
- Sharpen chain with a 7/32 file and holder (Oregon part number 13252)
- Place your file on the cutter and push straight forward. Keep the file position.
- After every cutter has been set, check the depth gauge and file it to the proper level.
- Make sure every cutter has the same length and edge angles as illustrated.

Type of chain	File diameter	Top plate angle	Down angle	Depth gauge standard
				
72V	7/32	25º	10 °	0.025”



Depth gauge



File

Adjusting the Carburettor

The carburettor has been factory adjusted, but may require fine tuning due to a change in operating conditions. Before adjusting the carburettor, make sure that the provided air/fuel filters are clean and the fuel properly mixed.

When adjusting, take the following steps:
Stop the engine and screw in both the H and L needles until they stop. Never force them. Then set them back the initial number of turns as shown below.

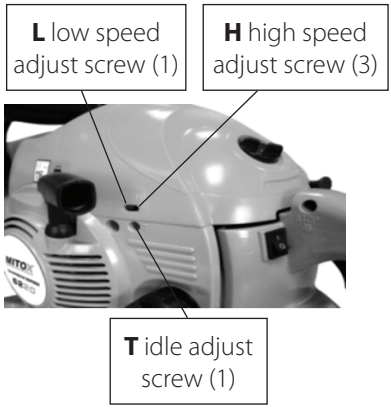
H needle: 2+ or -¼
L needle: 2+ or -¼

1. Start the engine and allow it to warm up at half-throttle.

2. Turn the L needle (2) slowly to find a position where idling speed is at maximum, then set the needle back a quarter (1/4) turn counter clockwise.

3. Turn the idle adjusting screw T (1) counter clockwise so that the saw chain does not turn. If the idling speed is too slow, turn the screw clockwise.

4. To verify the low speed you should be able to pull the throttle in all the way and the engine should not die, if it tries to die, open the L jet (2) slightly and re-adjust idle if necessary.



5. Set the engine to full throttle, the H jet (3) is turned clockwise to reduce fuel, as the fuel mixture is leaned out, the saw will run faster until it sounds as if it is screaming, at this point, turn the high speed screw counter clockwise by quarter (1/4) turn to allow more fuel in.
A 2-cycle engine relies on the fuel mixture to cool the engine; a lean engine will run fast but can overheat and may cause severe damage to the engine.

The carb mixture adjustment needs special tools and should only be adjusted by a dealer or professional as incorrect mixture adjustment can damage the engine and will invalidate the warranty.

Service Schedule

Component	Procedure	Before Use	Every 25 Hours	Every 50 Hours	Every 100 Hours	Note
Fuel Leaks / Fuel Spillage	Wipe Out	•				
Fuel Tank. Fuel Filter	Inspect / Clean	•	•			Replace if Neccessary
Idle Adjusting Screw	See Adjusting Carburettor	•				Adjust if Neccessary
Spark Plug	Clean and Readjust Plug Gap			•		Gap 0.025in (0.6-0.7mm) Replace if Neccessary
Cylinder Fins, Intake Air Cooling Vent	Clean		•			
Muffler, Spark Arrestor, Cylinder Exhaust Port	Clean			•		
Throttle Lever, Ignition Switch	Check Operation	•				
Air Filter	Clean	•				
Screws, Nuts, Bolts	Tighten / Replace	•			•	Except Adjusting Screws
Oiling Port	Clean	•				
Guide Bar	Clean	•				
Sprocket	Inspect / Replace			•		
Saw Chain	Inspect / Sharpen	•				

Troubleshooting

Power loss or engine stopping.

- Check that the fuel tank is not empty.
- The mixture does not reach the carburettor. Change the fuel filter in the fuel tank.
- There is water in the mixture. Drain then clean the fuel system .
- The air filter is dirty. Clean the air filter.
- There are carbon deposits in the cylinder exhaust pipe or the muffler. Clean or change muffler.
- Spark plug is worn. Replace spark plug.

Specifications

Power unit

Displacement
……62.0cc

Maximum engine power
...……3.0kW
Fuel…….. ……Mixture (Unleaded Gasoline 40 : two-cycle oil 1)
Fuel tank capacity……550ml
Chain oil……Anti-Fling SAE-30
Oil tank capacity……350ml
Carburettor……Diaphragm type (walbro)
Idling speed……3200r/min
Maximum speed with cutting attachment……11000r/min
Ignition system……C.D.I. with timing advance function
Spark plug……NGK BPMR7A

Dimensions (L x W x H)……430 × 270 × 300(mm)
Dry weight……6.3kg
Dry weight 6220 w/ bar & chain……7.69kg
Dry weight 6224 w/ bar & chain……8.06kg

Cutting gear 6220

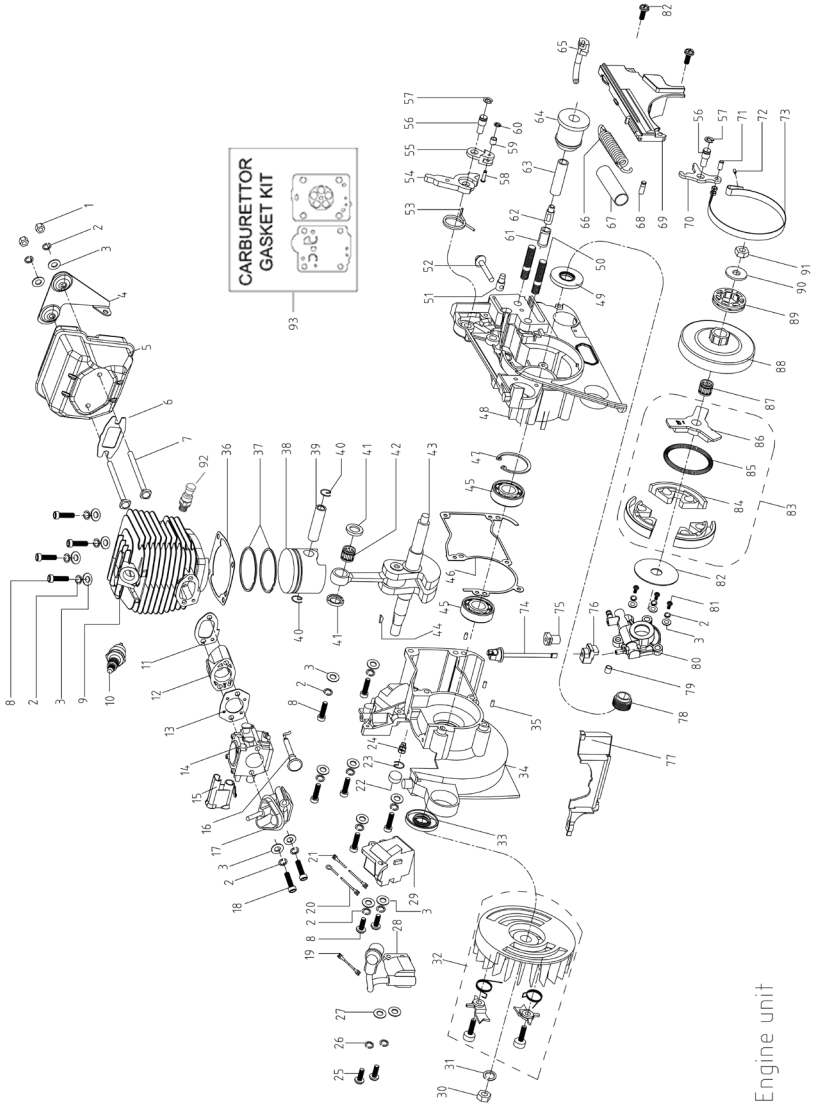
Type:.....Sprocket nose
Size (in): .....20″
Saw chain: .....20″
Type:.....Oregon 72V, 72 Drivelinks
Pitch (in):.....3/8″
Gauge (in): .....0.050″

Cutting gear 6224

Type:.....Sprocket nose
Size (in): .....24″
Saw chain: .....24″
Type:.....Oregon 72V, 84 Drivelinks
Pitch (in):.....3/8″
Gauge (in): .....0.050″

Specifications are subject to change without notice.

6220 / 6224 Parts - Engine Unit



6220 / 6224 Parts - Engine Unit

ID	PART NUMBER	DESCRIPTION	QTY
1	MIGB/T6186 M5	NUT M5	2
2	MIGB/T93 M5	SPRING WASHER M5	19
3	MIGB/T97.1 M5	WASHER M5	19
4	MIYD62.01.09.00-1	MUFFLER BRACKET	1
5	MIYD62.01.09.01-00	MUFFLER	1
6	MIYD62.01.00-4	MUFFLER GASKET	1
7	MIYD62.01.00-8	MUFFLER BOLTS	2
8	MIGB/T6191 M5X20	SCREW M5X20	12
9	MIYD62.01.00-1A	CYLINDER	1
10	MISPBPMR7A	USE SPBPMR7A	1
11	MIYD62.01.00-5	GASKET	1
12	MIYD62.01.00-2	INSULATOR	1
13	MIYD62.01.00-6	GASKET	1
14	MIYD62.01.06.00-00	CARBURETOR	1
15	MIYD62.01.00-10	ADJUSTER COVER	1
16	MIYD62.01.00.02-00	CHOKE ROD	1
17	MIYD62.01.00.01-00	AIR INTAKE SOCKET	1
18	MIGB/T6191 M5X82	BOLT M5X82	2
19	MIYD62.01.11.05-00	LINK WIRE	1
20	MIYD62.01.11.04-00	GROUND WIRE	1
21	MIYD62.01.11.03-00	COIL WIRE	1
22	MIYD62.01.00-7	FILTER	1
23	MIYD62.01.00-9	CIRCLIP	1
24	MIYD45.01.01.02-2	BREATHER JET	1
25	MIGB/T818 M4X16	SCREW M4X16	2

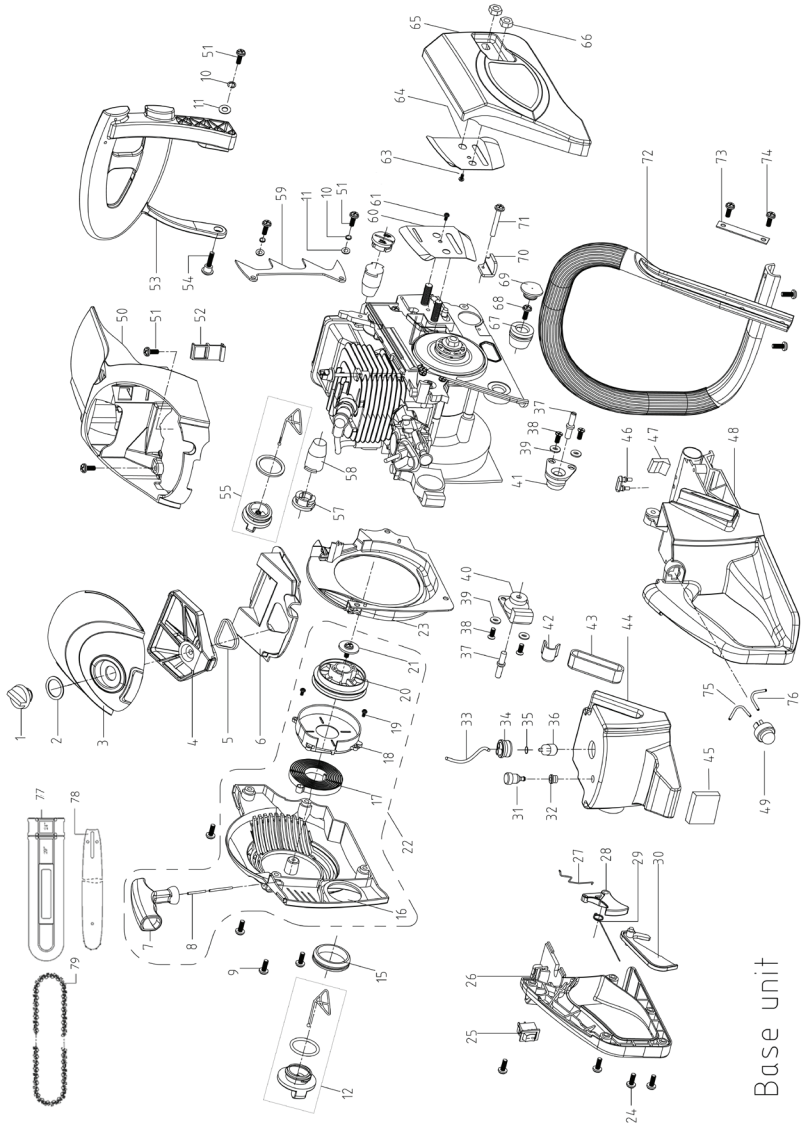
ID	PART NUMBER	DESCRIPTION	QTY
26	MIGB/T93 M4	WASHER M4	2
27	MIGB/T97.1 M4	PLAIN WASHER M4	2
28	MIYD62.01.11.02-00	IGNITION COIL	1
29	MIYD62.01.11.01-00	FLYWHEEL COIL	1
30	MIGB/T6171 M10X1	NUT M10X1	1
31	MIGB/T93 M10	SPRING WASHER M10	1
32	MIYD62.01.10.00-00	FLYWHEEL ASSY	1
33	MIYD62.01.00.03-00	OIL SEAL 13X20X4.5	1
34	MIYD62.01.01.00-1	CRANK CASE L/H	1
35	MIGB/T119.2 5X10	PIN 5X10	3
36	MIYD62.01.00-3	CYLINDER BASE GASKET	1
37	MIYD62.01.03.00-1	PISTON RING	2
38	MIYD62.01.03.02-00	PISTON	1
39	MIYD62.01.03.00-2	PISTON PIN	1
40	MIYD45.01.03-4	PISTON PIN CIRCLIP	2
41	MIYD62.01.03.00-3	NEEDLE BEARING RING	2
42	MIYD45.01.03.02-00	NEEDLE BEARING 11X15X12.5	1
43	MIYD62.01.03.01-00	CRANKSHAFT	1
44	MIGB/T1099 3X3.5X10	SEMI-CIRCULAR KEY 3X3.5X10	1
45	MIGB/T276 6202D	BEARING 6202 GRADE D 15X35X11	2

6220 / 6224 Parts - Engine Unit

ID	PART NUMBER	DESCRIPTION	QTY
46	MIYD62.01.01.00-2	CRANKCASE GASKET	1
47	MIGB/T893.1 35	CIRCLIP (SIZE 35)	1
48	MIYD62.01.01.01-1	CRANKCASE R/H	1
49	MIYD45.01.00.08-00	OIL SEAL 15X35X4.5	1
50	MIGB/T900 M8X28-8.8	BAR STUD AYM8-M8×28-8.8	2
51	MIYD62.00.02-2	CHAIN TENSIONER PAWL	1
53	MIGB/T9074.1 M5X48	CHAIN TENSIONER SCREW M5X48	1
54	MIYD62.04.00-2	CHAINBRAKE TORSION SPRING	1
55	MIYD62.04.00-1	BRAKE CONTROL BRACKET	1
56	MIYD62.04.03-1	ACTUATOR	1
57	MIYD62.01.01.01-2	PIN	2
58	MIGB/T896 6	CLIP (SIZE 6)	2
59	MIYD62.04.03-2	SPACING PIN	1
60	MIYD62.04.03-3	SPACER	1
61	MIGB/T896 2	SHIELD RING SIZE 2	1
62	MIYD45.01.00.04-2	OIL FILTER SCREEN	1
63	MIYD45.01.00.04-1	OIL FILTER	1
64	MIYD62.05.00-3	OIL PIPE	1
65	MIYD62.05.00-4	GROMMET	1
66	MIYD62.05.00-2	OIL FEED PIPE	1
67	MIYD62.04.00-3	BRAKE SPRING	1

ID	PART NUMBER	DESCRIPTION	QTY
68	MIYD62.04.00-4	TUBE	1
69	MIYD62.01.01.01-3	BRAKE SPRING PIN	1
70	MIYD62.00.00-5	BRAKE COVER PLATE	1
71	MIYD62.04.00-5	ACTUATOR	1
72	MIGB/T879.2 4X8	PIN 4X8	1
73	MIGB/T119.2 3X8	PIN 3X8	1
74	MIYD62.04.02-00	BRAKE BAND	1
75	MIYD62.00.08-00	OILING RATE ADJUSTER	1
76	MIYD62.00.00-10	GROMMET	1
77	MIYD62.05.00-8	CONNECTOR	1
78	MIYD62.01.00-14	PLATE	1
79	MIYD62.00.09-00	WORM GEAR	1
80	MIYD62.00.00-14	FIXING TUBE	1
81	MIYD62.05.01-00	OIL PUMP	1
82	MIGB/T818 M5X18	SCREW M5-18	5
83	MIYD62.01.00-11	CLUTCH WASHER 12X48	1
85	MIYD62.01.13.01-3	CLUTCH EXTENSION SPRING	1
87	MIYD62.01.00.04-00	NEEDLE BEARING 10X14X13.5	1
88	MIYD62.01.13.00-1	CLUTCH DRUM	1
89	MIYD62.01.00-12	SPROCKET	1
90	MIYD62.01.00-13	SPROCKET PLATE 8X23X2	1
91	MIGB/T6177.2 M8X1	NUT M8X1	1
92	MIYD06.06.186	DECOMPRESSOR	1
93	MICG62SERIES	CARB GASKET KIT	1

6220 / 6224 Parts - Base Unit



6220 / 6224 Parts - Base Unit

ID	PART NUMBER	DESCRIPTION	QTY
1	MIYD38-3.05.01-00	AIR FILTER LOCK NUT	1
2	MIYD38-3.05.00-6	LOCK NUT WASHER 15X26X1	1
3	MIYD62.00.00-1	AIR FILTER COVER	1
4	MIYD62.01.08.00-00	AIR FILTER	1
5	MIYD62.01.08.00-1	AIR FILTER SEAL	1
6	MIYD62.00.00-3	ANTI-DUST BASE	1
7	MIYD38-5.02.00-4	RECOIL HANDLE	1
8	MIYD62.02.00-5	RECOIL ROPE	1
9	MIGB/T818 M5X18	SCREW M5-18	4
10	MIGB/T93 M5	SPRING WASHER M5	7
11	MIGB/T97.1 M5	WASHER M5	7
12	MIYD62.00.03-1	FUEL CAP ASSY	1
15	MIYD62.02.00-6	RUBBER BUFFER	1
17	MIYD62.02.00-4	RECOIL SPRING	1
18	MIYD62.02.00-2	RECOIL SPRING CUP	1
19	MIGB/T845 ST2.9X7.5	SCREW ST2.9X7.5	2
20	MIYD62.02.02-00	RECOIL PULLEY	1
21	MIGB/T9074.19 ST4.8X13	SCREW ST4.8X13	1
22	MIYD62.02.00-00	STARTER ASSEMBLY	1
23	MIYD62.02.00-1	SIDE PLATE	1
24	MIGB/T845 ST4.8X13	TAPPING SCREW ST4.8X13	5
25	MIYD38-3.01.11.04-00	ON/OFF SWITCH	1

ID	PART NUMBER	DESCRIPTION	QTY
26	MIYD62.03.02-00	HANDLE COVER	1
27	MIYD62.03.00-3	THROTTLE LINK	1
28	MIYD62.03.00-1	THROTTLE TRIGGER	1
29	MIYD45.03.00-12	SAFETY TRIGGER SPRING	1
30	MIYD62.03.00-2	THROTTLE TRIGGER LOCK	1
31	MIYD45.03.04-00	BREATHER ASSY	1
32	MIYD38-3.03.00-3	BREATHER GROMMET	1
33	MIYD62.03.00-8	FUEL PIPE	1
34	MIYD38-3.03.00-2	GROMMET	1
35	MIYD45.01.01.01-3	CIRCLIP	1
36	MIYD45.03.03-00	FUEL FILTER	1
37	MIYD62.00.00-12	SCREW M6X16	2
38	MIGB/T819.1 M5X14	SCREW M5X14	4
39	MIGB/T956.1 M5	WASHER M5	4
40	MIYD62.00.06-00	AV RUBBER - L/H	1
41	MIYD62.00.07-00	AV RUBBER - R/H	1
42	MIYD62.03.00-5	AV RUBBER MOUNT	1
43	MIYD62.03.00-4	AV RUBBER	1
44	MIYD62.03.00-12	FUEL TANK	1
45	MIYD62.03.00-11	AV RUBBER	1
46	MIYD45.03.00-1	ANTI-VIBRATION RUBBER	1
47	MIYD62.03.00-10	AV RUBBER	1
48	MIYD62.03.01-00	REAR HANDLE	1
49	MIYD38-3.03.00-4A	PRIMER ASSY	1

6220 / 6224 Parts - Base Unit

ID	PART NUMBER	DESCRIPTION	QTY
50	MIYD62.00.00-2	UPPER COVER PLATE	1
51	MIGB/T818 M5X14	SCREW M5X14	5
52	MIYD62.00.00-4	ANTI FROSTING PLATE	1
53	MIYD62.04.01-00	CHAINBRAKE LEVER	1
54	MIYD62.00.00-13	SCREW M5X18	1
55	MIYD62.00.04-1	OIL CAP AS-SEMBLY	1
57	MIYD62.00.00-11	RETAINER CAP	2
58	MIYD62.00.05-00	AV RUBBER	2
59	MIYD62.00.00-6	FELLING DOG	1
60	MIYD62.00.00-8	COVER PLATE	1
61	MIGB/T818 M4X10	SCREW M4X10	1
63	MIGB/T845 ST4.2X8	TAPPING SCREW ST4.2X8	1
64	MIYD62.00.01-1	DAMPER	1
65	MIYD62.00.10-00	CHAINBRAKE COVER	1
66	MIGB/T6177.1 M8	NUT M8	2
67	MIYD38-3.06.03-00	ANTI-VIBRATION RUBBER	1
68	MIGB/T845 ST4.8X16	TAPPING SCREW ST4.8X16	1
69	MIYD38-3.00.00-8	DUST COVER	1
70	MIYD62.00.00-7	CHAIN CATCHER	1
71	MIYD38-3.01.00-16	CHAIN CATCHER SCREW	1
72	MIYD62.06.00-00	FRONT LOOP HANDLE	1
73	MIYD62.00.00-9	PLATE	1

ID	PART NUMBER	DESCRIPTION	QTY
74	MIGB/T845 ST4.8X19	TAPPING SCREW ST4.8X19	4
75	MIYD45-4.03.00-13	FUEL PIPE	1
76	MIYD38-3.03.00-1A	FUEL RETURN PIPE	1
77	MIYD07.04.1.00932	GUIDE BAR COVER 20"	1
	MIYD62.07.00-1	GUIDE BAR COVER 24"	1
78	MIYD62.07.01-00	20" GUIDE BAR	1
	MIYD62.07.01-00B	24" GUIDE BAR	1
79	MIYD62.07.02-00	20" CHAIN LOOP	1
	MIYD62.07.02-00B	24" CHAIN LOOP	1

CONDITIONS OF WARRANTY

The manufacturer warrants the product against faulty materials and workmanship for a period of 2 years from the date of first purchase. The warranty is applicable when the product is used in a "home owner" application. If products are used for commercial or professional purposes, the warranty period is for 3 months from the date of first purchase. Warranty does not extend to failure due to fair wear and tear.

The manufacturer undertakes to replace any spare parts that are classified as defective by an appointed Mitox service dealer. The manufacturer will not accept liability for the replacement of the machine, either partially or wholly, and/or consequential damages, and/or interest charges either directly or indirectly.

Warranty does not cover failure due to:

- Insufficient maintenance.
- Incorrect fuel mixture and stale fuel.
- Abnormal use or accidental damage.
- Incorrect assembly, adjustment or operation of the product.
- Spare parts that are subject to wear e.g. safety parts, blades, blade supports, bearings, cables, guards, deflectors, spark plugs, air filters etc.

Neither does warranty extend to:

- Freight and packing costs.
- Use of non-genuine spare parts i.e. those from another manufacturer.
- Use of the machine for any other purpose than that for which it was designed.
- Use and maintenance of the machine in a manner not described in the owner's manual.

As part of our policy of continuous product improvement, we reserve the right to alter or amend this specification without notice. As a result, the product may differ from the information contained herein, but any alteration will only be implemented without notice if it is classified as an improvement to the above specification.

READ THE MANUAL CAREFULLY BEFORE OPERATING THE MACHINE

When ordering spare parts, please quote the part number, this can be found in the parts list included in this manual.

Retain the receipt of purchase without which no warranty can be offered.

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